

CLAIMS

1. A glass bottle protective enclosure adapted for use with a glass bottle comprising a lower section having a shoulder and a bottle neck with an upper opening, and a bottle cap designed to be securely attached over the upper opening of the bottle neck, said glass bottle protective enclosure comprising:

- a) a lower bottle container having an integral side wall and a base,
- b) a lower bottle-container cap having means for being attached to said lower bottle container, and
- c) means for protecting the glass bottle contained within said protective enclosure from a shock impact.

2. The glass bottle protective enclosure as specified in claim 1 wherein said glass bottle is specifically designed to contain toxic injectable medication.

3. The glass bottle protective enclosure as specified in claim 2 wherein said lower container is constructed of a transparent plastic which allows the medication labels on the glass bottle to be visible through the lower container and wherein said bottle container cap is also constructed of plastic.

4. The glass bottle protective enclosure as specified in claim 1 wherein said means for attaching said bottle container cap to said lower bottle container comprises:

- a) the upper terminus of said integral side wall having a set of external threads, and
- b) the lower terminus of said cap having a set of internal threads dimensioned to interface with the external threads on said integral side wall, wherein when the two threads are threaded, a tight leak-proof seal is provided.

5. The glass bottle protective enclosure as specified in claim 1 wherein said means for protecting the glass bottle contained within said protective bottle guard comprises:

- a) said lower bottle container having a plurality of internal shock absorbing protrusions that interface with the surface of said glass bottle, and
- b) said bottle container cap having a set of cap shock absorbing protrusions positioned to interface with the bottle cap.

6. The glass bottle protective enclosure as specified in claim 5 wherein said plurality of internal shock absorbing protrusions are comprised of rings or stubs.

7. The glass bottle protective enclosure as specified in claim 6 wherein said plurality of shock absorbing protrusions are located to not obstruct the view of a label attached to the glass bottle.

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8. The glass bottle protective enclosure as specified in claim 1 wherein said lower bottle container is constructed of a color-tinted plastic to indicate the type of medication contained in the glass bottle.

9. The glass bottle protective enclosure as specified in claim 1 further comprising a base having at least one sensor cavity into which is inserted an enclosure leakage sensor.

10. The glass bottle protective enclosure as specified in claim 9 wherein said enclosure leakage sensor is comprised of a water soluble substance that produces a visible color when the substance is dissolved into a leakage of the liquid medication contained in the bottle protected by said enclosure.

11. The glass bottle protective enclosure as specified in claim 9 wherein said enclosure leakage sensor is comprised of an electronic sensor that produce an audible signal when the sensor is exposed to a leakage of the liquid medication contained in the bottle protected by said enclosure.

12. A glass bottle protective enclosure adapted for use with a glass bottle comprising a lower section having a shoulder and a bottle neck with an upper opening, and a bottle cap designed to be securely attached over the upper opening of the bottle neck, said glass bottle protective enclosure comprising:

a) a lower bottle container having:

(1) a base with a lower surface and an upper surface,

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- (2) an integral side wall extending upward from said base and having an outer surface, an inner surface and an upper terminus that terminates adjacent the shoulder of the glass bottle,
- b) a plurality of shock absorbing protrusions projecting outward from the upper surface of said base and from the inner surface of said side wall,
- c) a bottle container cap having:
 - (1) a lower terminus having means for being securely attached to the upper terminus of said side wall, and
 - (2) a set of shock absorbing protrusions positioned to interface with the bottle cap.

13. The glass bottle protective enclosure as specified in claim 12 further comprising a base having at least one sensor cavity into which is inserted an enclosure leakage sensor.

14. The glass bottle protective enclosure as specified in claim 13 wherein said enclosure leakage sensor is comprised of a water soluble substance that produces a visible color when the substance is dissolved into a leakage of the liquid medication contained in the bottle protected by said enclosure.

15. The glass bottle protective enclosure as specified in claim 13 wherein said enclosure leakage sensor is comprised of an electronic sensor that produce an audible signal when the sensor is exposed to a leakage of the liquid medication contained in the bottle protected by said enclosure.

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16. The glass bottle protective enclosure as specified in claim 12 wherein said glass bottle is specifically designed to contain toxic injectable medication.

17. The glass bottle protective enclosure as specified in claim 16 wherein said lower container is constructed of a transparent plastic which allows the medication label on the glass bottle to be visible through the lower container, and wherein said bottle container cap is also constructed of plastic.

18. The glass bottle protective enclosure as specified in claim 17 wherein said transparent plastic is comprised of polycarbonate.

19. The glass bottle protective enclosure as specified in claim 16 wherein said plurality of shock absorbing protrusions projecting outward from the inner surface of said side wall are comprised of a pair of rings located adjacent the base and the upper terminus of said lower bottle container.

20. The glass bottle protective enclosure as specified in claim 19 wherein said plurality of shock absorbing protrusions are configured as discontinuous rings.

21. The glass bottle protective enclosure as specified in claim 16 wherein said plurality of shock absorbing protrusions are comprised of randomly placed stubs that project outward from the inner surface of the side wall and the upper surface of the base.

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22. The glass bottle protective enclosure as specified in claim 16 wherein said means for securely attaching said lower bottle container cap to said side wall comprises:

- a) the upper terminus of said integral side wall having a set of external threads, and
- b) the lower terminus of said cap having a set of internal threads dimensioned to interface with the external threads on said integral side wall, wherein when the two threads are threaded, a tight leak-proof seal is provided.

23. The glass bottle protective enclosure as specified in claim 16 wherein said means for securely attaching said lower container cap to said side wall comprises the upper terminus of said integral side wall having a male detent that accepts a tight-fitting female detent on said lower container cap.

24. The glass bottle protective enclosure as specified in claim 16 wherein said lower bottle container and/or said lower bottle container cap are colored-coded to indicate type of medication.

25. The glass bottle protective enclosure as specified in claim 16 further comprising a shrink wrap that encompasses said lower container and said lower bottle container cap.

26. A glass bottle protective enclosure adapted for use with a glass bottle comprising a lower section having a shoulder and a bottle neck with an upper opening, and a bottle cap designed to be securely attached over the upper opening of the bottle neck,

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said protective bottle guard comprising:

- a) a lower bottle container consisting of a skeletal structure comprising:
 - (1) a base having a lower surface, an upper surface, an outer edge and a plurality of shock absorbing protrusions projecting upward from the upper surface of said base,
 - (2) an upper ring having an outer surface, an inner surface, an upper edge and a lower edge,
 - (3) at least one intermediate ring having an outer surface and an inner surface,
 - (4) at least three shock absorbing ribs wherein each rib extends integrally upward from the outer edge of said base and where each rib is integrally attached to the outer surfaces of said upper ring and said at least one intermediate ring,
- b) a lower bottle container cap having:
 - (1) a lower terminus having means for being securely attached to the outer surface of said upper ring, and
 - (2) a set of shock absorbing protrusions positioned to interface with the bottle cap.

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27. The glass bottle protective enclosure as specified in claim 26 further comprising a base having at least one sensor cavity into which is inserted an enclosure leakage sensor.

28. The glass bottle protective enclosure as specified in claim 27 wherein said enclosure leakage sensor is comprised of a water soluble substance that produces a visible color when the substance is dissolved into a leakage of the liquid medication contained in the bottle protected by said enclosure.

29. The glass bottle protective enclosure as specified in claim 27 wherein said enclosure leakage sensor is comprised of an electronic sensor that produce an audible signal when the sensor is exposed to a leakage of the liquid medication contained in the bottle protected by said enclosure.

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